

BACKGROUND RESEARCH

KENT COUNTY AND THE CITY OF DOVER

In reference to the Delaware State Historic Preservation Plan and its historic context framework, the project area is situated within the Upper Peninsula Zone and is located in the City of Dover, Kent County. European settlement of the Kent County area commenced circa 1671. Exploration of this area had been proceeding since early in the seventeenth century, but the relatively small number of Swedish, Dutch, and English settlers who landed in the present-day state of Delaware prior to 1671 concentrated at either the northern or the southern end of the present state, along the coast. The region was under Swedish rule from 1638 to 1655, Dutch rule from 1655 to 1664, English rule from 1664 to 1673, Dutch rule again from 1673 to 1674, and was finally returned to English sovereignty in 1674 (Hancock 1976:4). The area was governed as the upper reaches of the district of Whorekill (an earlier name for Lewes) from 1673 to 1680. Kent County was founded in 1680 under the name St. Jones County and was given its permanent designation by William Penn in 1682.

Based on the record of land grants from the 1670s, the pioneers of the Kent County area clustered to some degree along the St. Jones and Mispillion creeks during the first decade of European settlement, but thinly scattered homesteads were established along the lower reaches of most of the creeks in the area (Hancock 1976:5). The early settlers were predominantly English, with some Dutch and a few people of French Protestant (Huguenot) heritage. Many settlers moved to the Kent County area from Maryland (Hancock 1976:4-6). A few Marylanders probably brought African-American slaves with them, and some were imported to Kent County later, though slavery never became as prevalent there as it was in the Chesapeake tidewater region (Hancock 1976:25).

The economic life of Kent County has been thoroughly dominated by agriculture from the early period of European settlement almost to the present. In the late seventeenth and the eighteenth centuries, following an initial phase of subsistence production during which homesteads were started and the first fields were cleared, farmers tended to take up the mixed agricultural system that characterized much of the Middle Atlantic region. This system emphasized the production of wheat, Indian corn, and livestock for market, with other grains, flax, and orchard and garden crops raised for subsistence. Kent County settlers found the soil very fertile in general. Tobacco was cultivated during the first century of European settlement, chiefly by transplanted Marylanders (Herman et al. 1989:20, 24).

The nineteenth century began poorly for county farmers. The soil in Kent County, which was originally highly productive, was depleted by the agricultural methods typical of the region's early farmers during the eighteenth century. By the 1820s this tendency was threatening a local economic and demographic crisis. From 1820 to 1840 the county's population declined from 20,793 to 19,872, as many young people left the area (Hancock 1976:19).

By the 1840s the agrarian economy began to improve. The recovery was fostered by improved methods of husbandry and greatly aided by the improvement in general means of transportation that characterized the region during the mid-nineteenth century. Early in the century a stagecoach line that serviced the county was established out of Wilmington. The advent of steamships also enhanced travel from places like Smyrna, Dover, Lebanon, and Milford to Philadelphia and Wilmington (Hancock 1976:20). The first railroad to have an impact on the county was the Delaware Railroad, which was constructed during the 1850s from Dover to a junction with the Philadelphia, Wilmington, and Baltimore Railroad just south of Wilmington. The Delaware Railroad Company, originally chartered in 1836, was organized to construct a north-south route

through the state of Delaware from the Wilmington and Susquehanna Railroad or the Frenchtown-New Castle Railroad to the Cape Charles area at the southern end of the Delmarva Peninsula. It took many years to gather financial backing, and after a survey was conducted work began at the northern terminus of the Frenchtown-New Castle Railroad in 1855. Construction continued for the next few years (Scharf 1888:429). The Delaware Railroad had an immediate impact on the development of the county. Because towns like Smyrna and Camden did not welcome the establishment of the railroad, the line was constructed to the west of these towns, resulting in the establishment of depots in non-settled areas. Because of the business created by the railroad, which became the most efficient and productive form of transportation during the nineteenth century, towns like Clayton, Cheswold, Wyoming, Hartly, Harrington, and Felton quickly sprang up around these depots. The surge in transportation capacity and speed created by the steamship and later the railroad lowered the price of fertilizer and greatly facilitated the marketing of agricultural commodities. This economic resurgence enabled Kent County to return to its former pattern of moderately paced growth, attaining a population of 27,804 in 1860 and 32,874 in 1880 (Hancock 1976:21).

The changes in agricultural organization and activity that transpired after 1820 had other effects on the population. Slavery declined in the county, with the number of slaves decreasing from 1,485 in 1800 to 203 in 1860. A local tendency toward manumission was probably one element in this trend, as during the same period the number of free African-Americans in Kent County grew from 5,731 to 7,271 (Hancock 1976:19). Another element, however, may have been a tendency for young emigrating farmers to take their slaves with them.

With the advent of the railroad and its promise of improved shipment of perishable products, Kent County farmers began to expand their orchards and vegetable fields during the second half of the nineteenth century. In the years immediately following the Civil War (i.e., circa 1865-1875), the expanded peach orchards matured, and production of this fruit became a major aspect of the county's agriculture. The raising of strawberries, legumes, salad greens, and other garden vegetables for nearby city markets also increased in scale, and cannery operations were established in the county's towns. It should be noted, however, that corn and wheat continued to be important Kent County commodities during the late nineteenth and early twentieth centuries (Hancock 1976:35-36).

Because the area has relied upon an agricultural economy through most of its history, neither heavy industrialization of the area nor the formation of large and complex urban centers has occurred within Kent County. Dover has remained the county's largest settlement from the colonial period to the present day. Its first European residents were Dutch, who in the early 1660s patented land, and probably built houses, along the navigable reaches of the St. Jones River. To them the area was part of Whorekill, their colony centered at Lewes. Along with the rest of Delaware, Whorekill passed to British control in 1674. In 1680 the settlements along the St. Jones were separately incorporated as St. Jones County. The name was changed to Kent by 1682, at which time a census listed 99 inhabitants in the new county (Scharf 1888:1030). The county court met at private houses until about 1697, when a courthouse was built near a landing on the St. Jones River in what is now Dover. In 1699 some of the residents, seeking a central place for their community, petitioned the Assembly to establish a town, to be called Canterbury, at the courthouse. The Assembly agreed, but specified that the town be called Dover. Little development took place in the new town, however, and in 1717 the residents petitioned the Assembly to refound it; again the Assembly complied, and commissioners were appointed to lay out the land in lots and sell them. A town was set up, with a central square at the intersection of the King's Road and another road called Long Street. Growth was still slow, but by 1729 a number of lots had been purchased and houses built. In the surrounding area, however, growth was much more rapid, and farms spread across the countryside (Bedell 1997:4).

During the mid-eighteenth century, Dover grew fairly rapidly. Its population was said to consist of only 20 families in 1750; however, in 1762 a British gazetteer described the town as containing about 200 to 300

inhabitants along with two churches, a courthouse, general store, tavern, tannery, shoemaker's shop, blacksmith's shop, and cabinetmakers' shops (Hancock 1976:9).

From the late seventeenth century into the nineteenth century, Dover was important not only politically, as the county seat and state capital, but also as a regional trading center. It contained many stores and skilled craftsmen. The town and vicinity also had its share of gristmills, sawmills, and tanyards situated along local waterways, employing waterflow for the operation of processing grain, timber, and hides. Manufacturing of any other kind was lacking in Dover until 1856, when Richardson and Robbins began a canning business for vegetables, chicken, and plum pudding (Hancock 1976:51). In 1871 Joseph Chambers built a factory where he packed hermetically sealed products; this business was acquired by J.M. Chambers Packing Company ten years later. In 1883 the Dover Glass Works Company was established, supplying much of the area with windows and glass products until it was destroyed by a fire (Williams 1929:844).

The nineteenth century also saw the reformation of local magisterial districts, or hundreds, in the Dover area. In 1823 Dover Hundred was created by a legislative act. Before that time the town site and vicinity were part of Murderkill and St. Jones' hundreds. The hundred annexed additional territory in 1831 by claiming another portion of Murderkill Hundred. In 1859 Dover Hundred was divided into East and West Dover election districts, and in 1877 these districts became separate hundreds. East Dover Hundred was the more prominent of the two because it contained the town of Dover (Williams 1929:843).

One notable development within Kent County that benefited not only its African-American community but also that of the entire state was the establishment of the State College for Colored Students in Dover (now Delaware State University). The school was established in 1892 by the Second Merrill Land Grant College Act of 1890 to provide an institution of higher learning for African-Americans, because at that time Delaware College (now the University of Delaware) was open only to whites (Skelcher 1995:124). The state appropriated \$8,000 to purchase a 100-acre tract two miles north of Dover owned by Nicholas Lockerman, the largest property owner in Kent County. The school was established at this site with an original enrollment of just 12 students, and only 28 students in 1896; however, the school grew dramatically during the early decades of the twentieth century. By 1923 enrollment climbed to 138 students, and by 1949 the number reached 387 students. With the increase in students, more buildings were added and more faculty members were hired (Delaware State University n.d.:1-4). The initial curriculum trained students primarily in the fields of education and agricultural and trade professions. Most reported graduates became farmers or tradesmen (e.g., mechanics and electricians). In 1950 the Delaware Chancery Court decided that the educational opportunities offered at the colored college were not equal to those at Delaware College, and ended segregation in higher education in Delaware. After 1950 African-Americans were admitted to Delaware College, and the former colored college changed its name to Delaware State University.

During the early twentieth century, the town remained a small community. Census figures indicate that Dover had a population of 3,329 in 1900. The population continued to grow during the next two decades, however, with 3,720 and 4,042 people reportedly living in the town in 1910 and 1920, respectively. The fact that Dover still remained a small community did not discourage its modernization, as its municipal leaders spent thousands of dollars on civic improvements. In 1900 electricity first came to the town with the construction of municipal steam generators. In 1903 the town borrowed \$30,000 to construct a new sewer system, and in 1907 it spent over \$25,000 to pave many of the city streets (Sammak and Winslow 1967:47).

The continued trend of modernization, along with significant industrialization, resulted in the most significant period of growth for Dover from the mid-twentieth century to the present day. The age of the automobile resulted in infrastructural changes within Delaware. During the 1920s the state developed a highway system to facilitate automobile travel. The Dupont Highway (U.S. Route 13/113) was opened in 1924 and extended north-south through the state, passing through both Dover and Wilmington. The new

highway system allowed people to travel freely and efficiently throughout the state. Major industries and the military came to Dover beginning in the 1930s. Among the first of these major manufactories was the International Latex Corporation, which constructed a factory in Dover in 1937. In 1963 General Foods established a factory in the western part of Dover along North Street. Military mobilization in the years preceding World War II resulted in the construction of Dover Air Force Base, created in 1940 and located east of the town. Although the base closed for a short time after the war, it was reactivated in 1954 and has developed into one of the largest domestic air freight bases in the country. The presence of Dover Air Force Base along with a better transportation network linked to increased manufacturing have broadened local economic activity beyond farming, the related agricultural service and commerce businesses, and maintenance of the state government. This economic diversification has drawn new residents to the area. Following World War II, Dover experienced a significant housing shortage, which created a boom in housing construction for many years. By 1960 Dover's population was 7,250, almost double its 1920 population of 4,042 (Sammak and Winslow 1967:47-49).

THE DUPONT HIGHWAY

The Dupont Highway, which currently corresponds to U.S. Route 13 north of Dover and U.S. Route 113 south of Dover, was the first modern highway constructed in Delaware. In 1903 the state legislature passed the State Aid Law, established funding and an administrative framework for a state highway department, and also passed two laws governing the use of automobiles, marking the first state recognition of this form of individual transport. The State Aid Law was unpopular and was repealed in 1905 (Mack 1947:II:538-539). Nationally, the Good Roads movement recognized the economic development that a highway system would spur; however, support within Delaware was weak. In 1908 T. Coleman du Pont (1863-1930) offered to construct a superhighway through the state without cost to the public through a "plan which was spectacularly novel and far-sighted for that period—and in fact still is" (Rea 1975:171).

Du Pont proposed to organize a state-chartered corporation that would acquire a 200-foot right-of-way. Within the corridor would be a center roadway for high-speed automobile traffic. To either side would be northbound and southbound electric trolley tracks. Beyond the trolley lines would be lanes for heavy trucks and vehicles, and on the outermost lanes would be soft-surfaced routes for horses and horse-drawn conveyances. Defining the edge of the roadway would be sidewalks for pedestrians, and any unused portions of the corridor would be leased to utility companies or to farmers. Income from the leases would support the maintenance of the road, and the entire system was believed to be ultimately self-supporting. As a totally new concept, the proposed corridor would bypass towns and villages but would be connected to them by spur roads (Rea 1975:171, 179). Although there was some opposition, particularly among more conservative downstate farmers, du Pont prevailed; in March 1911 the legislature passed the necessary legislation and the Coleman du Pont Road (or Boulevard) Corporation was created (Rea 1975:172, 174). Construction of the highway began near Georgetown in October of that year.

Du Pont was initially his own chief engineer, but he soon brought in Frank M. Williams, formerly chief engineer of the New York State Highway Department, and two European consultants, Ernest Storms from Belgium and Thomas Aitken from Scotland. Other notable individuals associated with the early stages of the project were Charles M. Upham, future chief engineer of the Delaware Highway Department; C. Douglass Buck, who would become du Pont's son-in-law and then Governor of Delaware; and T. Coleman du Pont's son Francis V. du Pont, who went on to serve as Chairman of the Delaware Highway Commission, then to sponsor the Delaware Memorial Bridge, and finally to become Chief of the Bureau of Public Roads during the Eisenhower administration (Rea 1975:175-176).

Construction stopped six months into the project due to political opposition and litigation over land condemnation proceedings. The eventual compromise reduced the corridor to a 100-foot right-of-way and

increased the formula for assessing the value of farmland that was taken for the road. Construction proceeded until 1917, by which time a two-lane concrete roadway had been finished from the Delaware boundary as far north as the Appenzellar Farm near Ellendale (Rea 1975:176).

In 1917 Delaware organized a State Highway Department, creating an agency prepared to take over the responsibilities represented by du Pont's project. T. Coleman du Pont was a member of the State Highway Commission. Confronted by a potential conflict of interest, personal health problems, and increasingly complex private financial burdens, du Pont agreed to cede the completed portion of the road to the highway department, which would complete the remaining 69 miles to Wilmington. Du Pont also agreed to pay for the cost of completing the project up to a maximum of \$44,000, exclusive of the costs of bridging the Chesapeake and Delaware Canal. The road at this point occupied a 40-foot strip and unused land in the corridor reverted to the original owners (Rea 1975:177-178).

The road was completed in 1923 and was dedicated in 1924. In 1925 it was incorporated into the national primary road network authorized through the Federal Highway Act of 1921, and was designated as U.S. Routes 13 and 113. In 1927, due to heavy use, the roadway was widened 20 feet between Wilmington and the fork of U.S. Routes 13 and 40. In the early 1930s, it was dualized between Wilmington and Dover (Rea 1975:179-180). Subsequently, additional mileage between Dover and Selbyville was rebuilt as a dual highway (Rea 1975:180).

Part of the Dupont Highway within the project corridor was constructed on the alignment of an earlier road which extended from the town of Moorton to Dover. This road dates to at least the mid-nineteenth century, as it appears in the 1868 Beers atlas, and terminated at present-day White Oak Road (Figure 2). Because the road ran outside the city limits of Dover, the entire project corridor at the time of the highway's construction consisted of farmland. The agricultural character of the project area had not changed by shortly after the turn of the twentieth century (United States Geological Survey [USGS] 1906), or even a decade after the opening of the Dupont Highway in 1924 (USGS 1930) (Figures 3 and 4). However, it began to change with the construction of the International Latex Corporation plant in 1937, located on the Dupont Highway just north of Division Street. During the 1940s and 1950s many small service-related businesses began to be constructed along the highway, with the commercialization of the corridor continuing throughout the late twentieth century.

THE DELAWARE COMPREHENSIVE HISTORIC PRESERVATION PLAN

The *Delaware Comprehensive Historic Preservation Plan* defines four geographic zones for the state of Delaware, identifying important themes and property types likely to be found within each zone. The project area, situated in East Dover Hundred, is located in the Upper Peninsula Zone.

Previous survey within the project area vicinity was conducted by Robert A. Warrack of the Division of Culture and History in 1979. Mr. Warrack documented two resources along U.S. Route 13, a sign/sculpture for a roadside establishment named "Perry's Pantry" and the Hollywood diner. The "Perry's Pantry" sign is no longer extant, and the Hollywood diner is located in the section of U.S. Route 13 between Division Street and White Oak Road, which is outside the current project APE. For this project, it was expected that extant architectural resources 50 years of age or older would date to the contextual period of Urbanization and Early Suburbanization 1880-1940±.

The *Delaware Comprehensive Historic Preservation Plan* states that during the period of Urbanization and Early Suburbanization 1880-1940±, the architectural character of the previous period (Industrialization and Early Urbanization 1830-1880±) continued in the rural areas of the zone. However, the beginnings of suburban development, loss of agricultural lands, and transportation improvements emerged as factors that

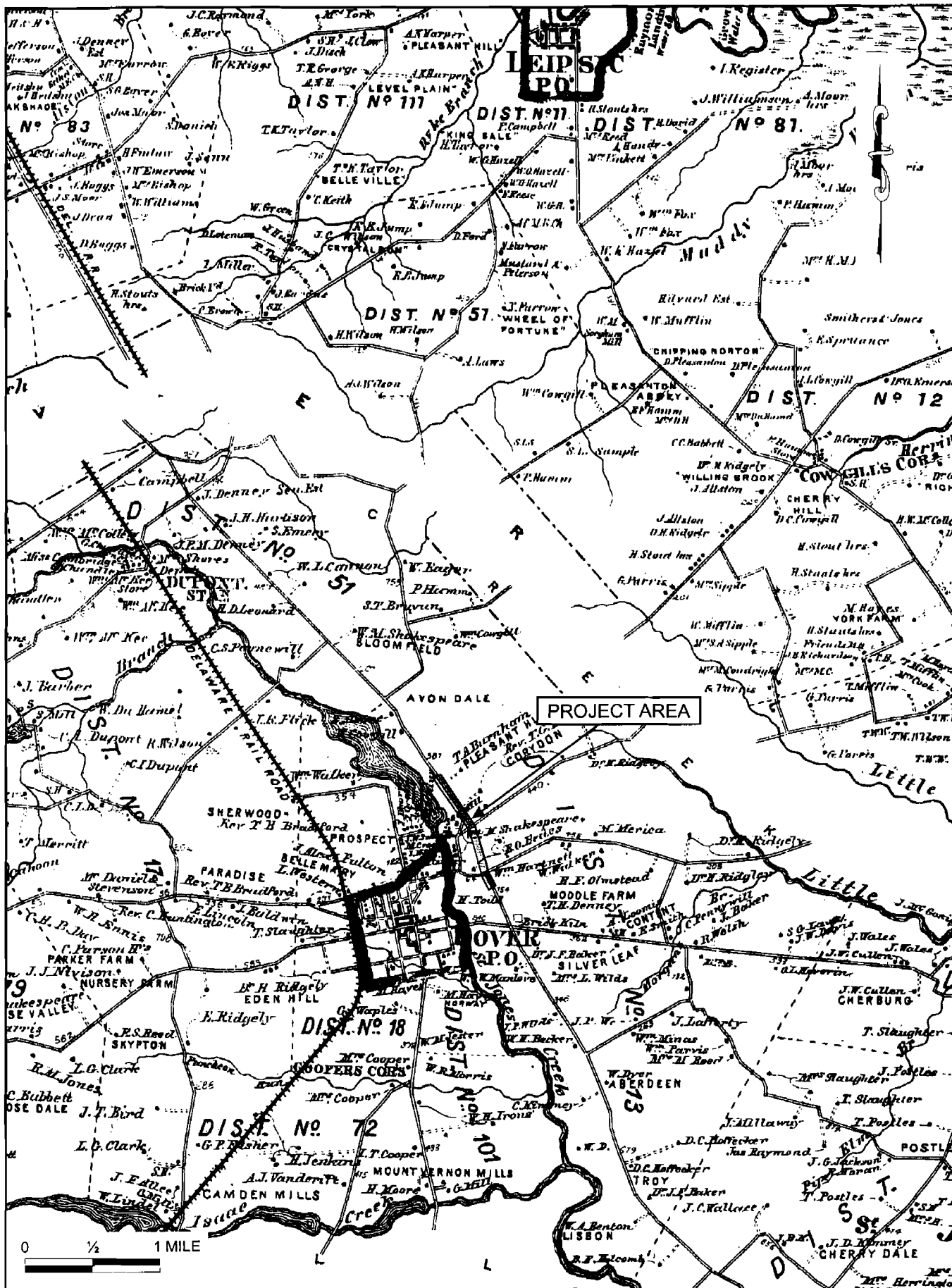


FIGURE 2: Project Area, 1868

SOURCE: D.G. Beers 1868

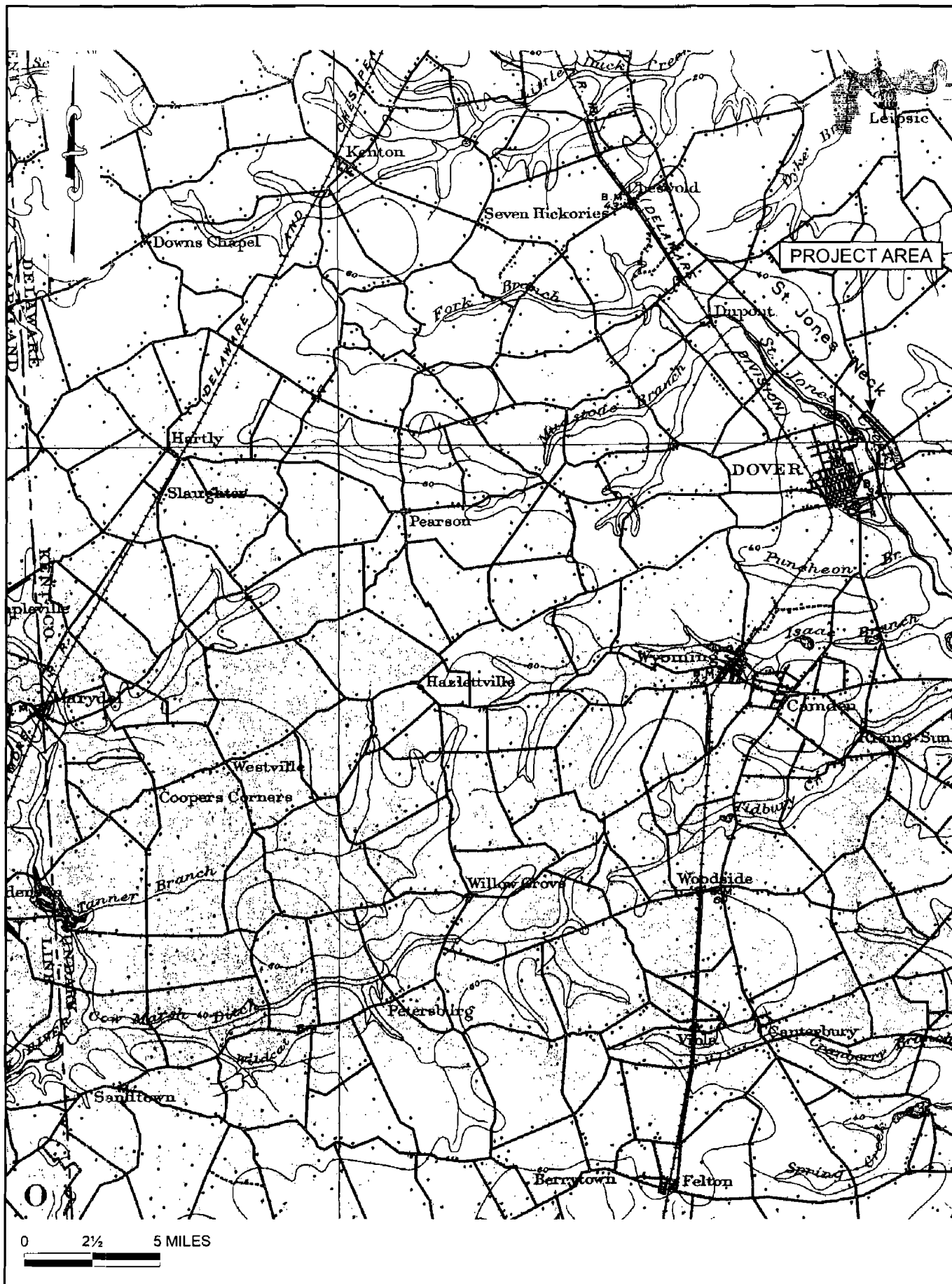


FIGURE 3: Project Area, 1906

SOURCE: USGS Quadrangle, Dover, DE 1906

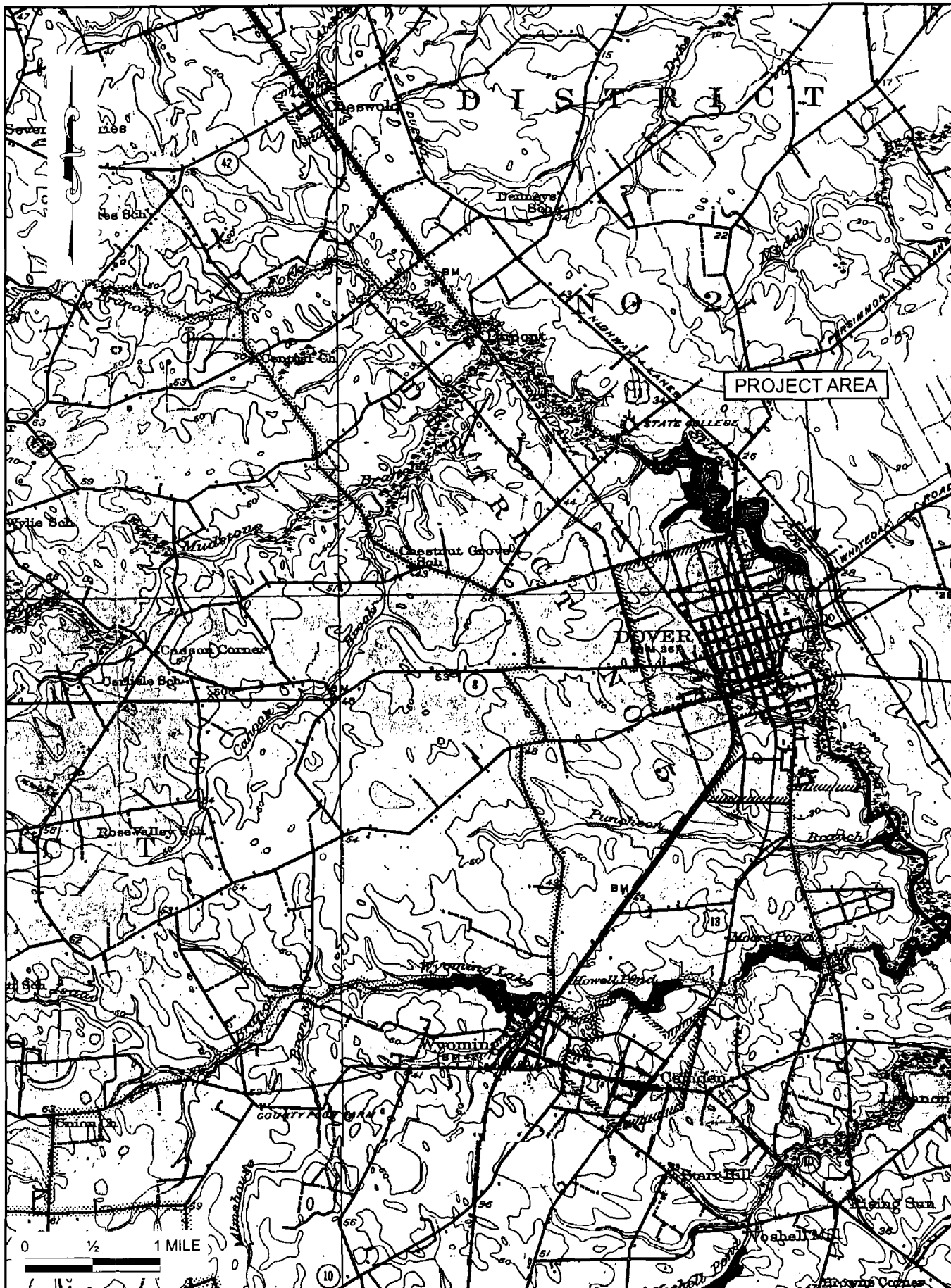


FIGURE 4: Project Area, 1930

SOURCE: USGS Quadrangle, Wyoming, DE 1930

brought increasing change to rural environments, particularly those near population centers and major roads. The architectural integrity of historic resources identified for this period in particular should be critically evaluated because it is for this period that there is the least amount of comprehensive cultural resource survey documentation (Herman et al. 1989:34-35).

HISTORIC CONTEXTS AND THEIR REPRESENTATION IN THE PROJECT AREA

Architecture, Engineering, and Decorative Arts

During the late nineteenth century, the Late Victorian era produced a variety of domestic architectural fashions derived from earlier historical precedents, with considerable emphasis on asymmetrical forms and elaborate surface treatments. At the “high” end of the architectural spectrum, dwellings could manifest considerable attention to stylistic ornament, while at the broader “popular” end of the spectrum, expression of style might consist only of a token reference. The architecture of rural and semirural settings continued to be characterized by folk-style dwellings, as before usually simple in form, such as an I-house, gable front, or gable-front and wing. Many houses very often had detailing inspired by Classical Revival, Italianate, or Queen Anne styles. The primary areas for the application of this detailing were at the main entrance, porch, or cornice line (McAlester and McAlester 1992:309). Throughout the Upper Peninsula Zone, simple farmhouses were detailed in this manner.

Around the turn of the century, and with increasing speed thereafter, houses tended to become smaller, more horizontal, and simpler in detail, partly as a reaction to the Victorian era and partly because of high construction and labor costs. The Bungalow, with its straightforward use of materials, low profile, and open, multi-purpose plan, came to epitomize the dwelling of choice for families of relatively modest means. Colonial Revival architecture also became a dominant domestic building type during this time, appealing to families of various income levels. The style appeared in many different forms, from one to two stories with side-gabled, hipped, and gambrel roofs. The main feature of the style was a centrally located main entrance that was accented by some means. More lavish examples usually included highly detailed ornament around the cornice, windows, and front entrance, while simpler examples were more vernacular in detail with little, if any, ornament.

During the early twentieth century, proliferation of the automobile and greatly improved roads made possible the clear geographic separation of home and workplace, resulting in construction of residences in areas heretofore almost entirely agricultural. This process, which accelerated during the 1920s, was brought to a halt by the Depression and World War II, only to resume at an ever larger scale in the late 1940s and 1950s. Rather typically, in that period of high labor costs, these dwellings exhibited economies of floor space and of exterior detail. Such houses, termed “Minimal-Traditional” by McAlester and McAlester (1992:477), constituted, in effect, extremely stripped-down versions of Eclectic-Revival styles prevalent in previous decades, particularly the Georgian or Classical Revival, Cape, and Tudor. These houses, which are common throughout Delaware, were a popular form used in suburban tract development throughout the United States during the mid-twentieth century (McAlester and McAlester 1992:338, 481).

Property Types Within the Project Area: Minimal Traditional Dwellings

Transportation and Communication

The Transportation and Communication theme within the project area is represented by the Dupont Highway (U.S. Route 13/113 in Dover). Construction of the Dupont Highway was among the most notable events that occurred in Delaware during the early twentieth century. The highway was the first of its kind in Delaware and was the longest in the United States when construction was completed in 1923.

The Dupont Highway eventually became part of a larger transportation system created by the Delaware State Highway Department, which was founded in 1917 to build and maintain a “‘permanent’ modern highway system extending into all corners of the state.” An important element of the act which established the highway department was a provision allowing it to issue bonds in order to raise the matching dollars. This enabled the department to begin construction of the improved roads without delay (Mack 1947:544). By the end of 1917, analysis of traffic volumes, road patterns and conditions, as well as projected demands for increased truck shipping, resulted in a plan for the development of a state road system with three primary highways running north-south (State Highway Department 1920:15). These three roads correspond to modern State Route 1 and U.S. Routes 13 and 113, which remain prominent transportation routes to this day.

Construction of modern highways and secondary roads during the early and mid-twentieth century played a profound role in shaping economic forces within Delaware, especially tourism. The development of the highways bolstered the existing tourist trade. Intrastate highways linked the beaches at Rehoboth, Lewes, Bethany, and Fenwick Island to metropolitan centers, such as Baltimore, Philadelphia, and Washington, D.C., as well as to local urban communities, such as Wilmington (Munroe 1984:204). The Delaware shore was now accessible to a large segment of the Middle Atlantic population for short, day or weekend jaunts and to an even larger group for longer vacations.

A number of social benefits accompanied the new ease of travel and the improvements to the roads. Bus service permitted consolidation of the public school system (Mack 1947:547). Prior to the invention of the automobile it was very rare for rural students to attend a public school located more than walking distance from home, and many one- and two-room schoolhouses dotted the countryside. By contrast, regional schools, replacing several smaller schools, were centrally located along improved roads to facilitate bus service for students from a greater area than was previously possible. Drawing from a larger regional resource base, consolidated schools were able to offer students, as well as the rural community, intellectual and social opportunities not previously available, such as graded classrooms, instruction in a greater variety of subjects, and library and laboratory facilities. Farm children with access to an automobile were able to do their chores in the morning before driving to school to attend class. As a result, more students in rural areas were encouraged to attend and to graduate from high school (Wik 1980:46).

As the quality and quantity of modern roads improved, there was a gradual shift in residential and commercial growth patterns. The value of land with direct access to the highway rose in proportion to the American dependence on the automobile (Munroe 1984:204). Greater distances could be covered in less time, and workers could live farther away from their places of employment. The result was the development of middle- and working-class suburbs outside of existing town nuclei (Interrante 1980:93). Especially following World War II, new communities were developed to house the families of returning GIs, who were able to travel by car to their workplaces in town and live in new, modern, residential communities. The construction of the interstate highway system in the 1950s further altered the face of the landscape as businesses moved out of congested urban centers to parcels with easy access to the highway.

The Upper Peninsula Zone includes the southern half of New Castle County and most of Kent County. U.S. Route 13, the Dupont Highway, is the dominant transportation corridor in the region, traveling south through the eastern third of the region in the vicinity of Odessa and Smyrna. At Dover the road forks, with U.S. Route 13 following a southerly route past Camden, Wyoming, and Felton, and U.S. Route 113 diverging to the east near Frederica and Milford. Just north of Milford, U.S. Route 113 splits, as State Route 1 branches off toward the coastal resorts to the southeast. In the northwestern part of the region, State Route 896/U.S. Route 301, traveling north-south, links Newark, located to the north in the Piedmont Zone, with U.S. Route 13 north of Smyrna. U.S. Route 301N accommodates travel from U.S. Route 13 at State Road to the Maryland border. Most of the roads in the region follow random paths in general north-south or east-west

directions. Larger commercial centers are identifiable by the roads radiating from the town centers into the surrounding area.

Highways, as a property type, fall under the Transportation and Communication context theme, since they are primarily used to transport goods, passengers, or information (Ames et al. 1989:27). As mentioned above, these resources are generally part of large road networks that extend hundreds of miles. A modern highway within Delaware consists of one or more lanes that can be divided by a median or barrier. Many modern highways were constructed of concrete, and generally all have been surfaced with asphalt. Highways can contain an interconnection of associated property types. Bridges and culverts carry highways over geographical features as well as other transportation features.

Property Types Within the Project Area: Highway

Retailing and Wholesaling

Commercial Development Along Delaware Highways

The Retailing and Wholesaling theme is represented in the project area by commercialization along the Dupont Highway in Dover. Among the particular design aspects advanced by du Pont with the construction of his highway was the concept of bypassing the centers of towns and connecting to the main street via spur roads. Such was the case with Dover, as the highway was initially constructed just east of the city limits, in rural East Dover Hundred. Initially the public feared that the bypasses would cause downtown businesses to suffer. However, by the time the State Highway Department was created in 1917, the idea of the bypass had become well accepted, and the first department report (1917-1920) admitted, "in many instances it is better to have the trunk roads laid out near the towns rather than through the towns" (State Highway Department, quoted in P.A.C. Spero & Company 1991:182). Typically, a secondary business district more accessible to automobile travelers formed outside of the main street along the new spur road (Liebs 1985:26).

With the construction of modern roads outside existing downtown districts, enterprising citizens realized the potential of the vast market opening up in the auto service industry and began to establish businesses along the new thoroughfares. As a result, secondary commercial districts grew along the roadsides to service the specific needs of the automobile traveler. A 1934 article in *Fortune* magazine explains, "along the great American Road, the Great American Roadside sprang up prodigally as morning mushrooms, and completed a circle which will whirl for pleasure and for profit as long as the American blood and the American car are so happily married" (quoted in Liebs 1985:21-22). The new establishments commonly included gas and service stations to fuel and maintain the vehicles, restaurants and tourist courts to fuel the passengers, and various stands and shops to offer diversions.

Initially, new commercial buildings designed to attract auto travelers were housed in structures that conveyed an image of familiar surroundings. These buildings resembled houses, libraries, and banks in colonial, craftsman, and occasionally mission and adobe styles (the latter two were more typical in western and southwestern regions). In contrast with the newness of automobile technology, the architecture of auto-related businesses was homey and traditional.

A distinct difference between the businesses on a town's main street and those on the highway was the change in design to accommodate the automobile. The move of commerce away from the main street resulted from the desire to ease automobile access to services (Liebs 1985:10). Parking was generally cumbersome, if not scarce, for automobiles in the center of towns, whereas the service stations, motels, and restaurants located on the new roads and highways offered ample and accessible off-road parking facilities. The size of commercial lots grew to accommodate at minimum a drive court alongside gas pumps or for

letting off and picking up passengers at the front doors of restaurants and motels. In addition to or instead of the drive court, many commercial buildings offered their customers parking alongside or behind the building. The speed with which the automobile was integrated into architectural designs is testimony to the pervasiveness of the car in American culture.

Toward the mid-1930s, the new design aesthetic of Modern, or International, style architecture also began to be associated with auto services. The Streamline Moderne style attempted to replicate in buildings the aerodynamic, streamlined designs popular at the time for automobiles. As a symbol of the technology of the modern industrial era and the automobile age, in the 1930s and 1940s, streamlined architecture was chosen with increasing frequency to express the constantly expanding role of the automobile in American life. The basic form of this style was the box, often with an enameled or metallic facade, a flat roof, and glass block windows. Rounded corners, curving entries and access ramps, and neon tubing were added to further evoke the essence of movement. The streamline style was applied to diners and fast-food restaurants, car dealerships, auto parts stores, garages and gas stations, as well as motels, movie theaters, schools, and shopping centers (Craig 1990:15-17). The construction of modern roads encouraged the use of the automobile, and, in response, the construction of equally modern facilities to service the automobiles using the roads.

The transformation from neat, homey structures to modern, functional buildings represented the acceptance of automobiles and their undisguised service facilities into American culture, as well as the espousal of the Modern ethic, "form follows function," for buildings rooted in that era.

Service Stations

Among the more resident commercial property types constructed along modern roads was the service station. The earliest buildings designed specifically for fueling automobiles consisted of one or more fuel pumps at the curbside in front of the local hardware or general store. These curbside filling stations caused havoc and congestion as traffic became backed up while refueling vehicles blocked the roads. A 1933 article in *Architectural Record* noted that "it is obviously desirable that the pumps should not be erected on the roadside but on an island on premises off the road, so that vehicles may pass in each direction, and, standing to receive attention, will not interfere with other traffic on the road" (Sharp 1933:436). The St. Louis-based Automobile Gasoline Company was the first petroleum company to enter the direct gasoline service market, erecting a small brick building with a paved yard and four gas pumps on an ordinary city lot (Vieyra 1979:7). This model became the prototype for the modern gas station.

By the second decade of the twentieth century, prefabricated metal and glass stations became the standard in auto-support design. They were portable and could be erected and in operation within a few days (Vieyra 1979:7). Many early stations, called Split Islands, were independently owned and sold multiple brands of gasoline from a single island.

At the same time, oil companies began to sell franchises for stations selling a single brand of gasoline. The companies sought to attract loyal customers and to develop a corporate image through station design incorporating easily recognizable company logos and colors. Standardized service station design first took on a domestic flair. "Tasteful" stations, resembling homes, banks, and libraries, were designed in colonial, craftsman, and, occasionally, more exotic mission styles to blend into the local environment. A porte-cochere attached to the front sheltered the pumps and the attendant pumping gas (Anderson 1989:2).

As the national road system expanded in the 1920s, so did pleasure travel, and so, accordingly, did the presence of gas stations, as well as businesses specializing in auto repairs or stocking solely auto parts. Whereas auto parts stores were generally relegated to newly developed commercial districts, service stations

sprang up at regular intervals along highways as well. Individual pump islands, found in association with roadside stands, tourist camps, and diners, were equally prolific. In an effort to attract customers, oil companies developed standardized station designs and identifiable company colors and logos so that travelers away from home would feel comfortable purchasing their usual brand name gasoline from a familiar-looking station. Oil companies invaded the market of the auto repair shops and parts stores when they expanded their services to include oil and lubricants as well as tires, batteries, and accessories. The addition of pits and lifts to the assemblage at the gas station encouraged customers to view the station as an alternative to the repair shop, making the full-service station a commonplace entity by the end of the 1920s (Vieyra 1979:8-9).

During this era, Pure Oil was the first oil company to adopt the cottage motif as the model company design. The stations resembled rustic cottages with steeply pitched roofs. A bay window in the facade displayed products for sale next to an arched doorway with a stoop and a small window with a flower box (Vieyra 1979:44). To reinforce brand recognition, the roof tiles and trim were painted "Pure Oil Blue." Sun Oil produced a similar design that was built during the 1920s and 1930s. This model also used the company colors, blue and gold, to help customers identify the brand of gasoline served by the station.

By 1930 the standard in gas station design was shifting to embrace the principal of modern architecture. Prefabricated steel buildings with large glass windows were touted as the ideal design in a 1930 issue of *Architectural Record*: "Although a great number of existing stations are built as chain stations and are standard in design . . . [they] have mostly been limited to imitations of stone and wood structures. . . . Standardized manufactured units should be as 'impersonal' in form as the mechanical equipment. All 'architectural styling' should be avoided" (Lonberg-Holm 1930:571). The design of the building was to suggest to the customer efficiency and cleanliness. "The repeated use of elementary forms," and the incorporation of rounded corners, "a maximum of glass area" in the walls, and a "definite color scheme" so as to be easily recognizable from the road, would create visual unity (Lonberg-Holm 1930:570, 578). Harold Holiday Costain celebrated the evolving designs as "rationalized service buildings planned to both function as efficiently as possible and to dramatize the station facilities and service process rather than conceal them" (Costain 1941:69).

In 1937 Walter Dorwin Teague presented plans for a series of standardized service stations that he had created for Texaco. Five versions of the basic station were designed to suit a variety of situations and needs depending on the location of the site (e.g., corner lot, narrow city lot, highway site) and the services to be offered (e.g., large corner office with multiple-bay lubritorium, single- or double-bay lubritorium, office only). The objectives of the design were to establish company trademark and color identification, to create efficient work and service spaces, and to provide adequate offices and restrooms. Although the design was most often constructed using a wall covering of white enameled porcelain, the building could also be adapted to stucco, wood, brick, or concrete block wall treatments. Most importantly, the station was designed to convey to the customer a feeling of swift, efficient, and reliable service (*Architectural Record* 1937:69).

Variations on Teague's design were widely adopted by other oil companies in addition to Texaco. As the box became synonymous with service station design, different companies produced variations on the basic form. Shell's "Dresser Style" service station, in the late 1930s, was sheathed with porcelain tiles and had a curved aluminum canopy, highlighting the corner office (Shell Oil Company archives). Standard Oil's 1940 station combined Teague's porcelain sheathed box with the curved metal awning of Shell's Dresser station, this time encircling the box. Above the awning was the company name spelled out in red letters (BP America, Inc. [1940]). The version produced by the Mobil Oil Company featured a raised roofline above the curved corner office in an imitation of an oil drum, a symbol associated with the company name. Painted on the front of the drum directly above the office windows was the company's logo, the flying red Pegasus (Mobil Oil Corporation n.d.).

After World War II the Modern box was abstracted in the Modernistic spirit of the space age with flared rooflines and vertical pylons to display company logos. The latter trait was reminiscent of the pylons used by Shell on its stations in the early 1930s. However, now the projections were rectangular or wedge-shaped, and often highlighted by columns of glass blocks built into the angular extensions. Texaco, Gulf, and Shell, among others, developed station designs featuring slabs and square towers above the roofline to display the company logo.

Property Types Within the Project Area: Service Station, Shopping Center

Manufacturing

The last three decades of the nineteenth century ushered in the modern industrialization age with the transformation from water- to steam-driven manufacturing. During this era, consumer products were produced in three- to five-story brick factory buildings located in urban settings. These factories were divided into a series of processing rooms, with each room and often each floor of the building engaged in a separate process. The rooms and floors were laid out in sequential order from the beginning to the end of the product line (Rifkind 1980:273, 293).

Industrialization during the twentieth century was shaped by the use of electricity, the relocation of industry from urban cores, and assembly-line production. The use of electricity in industry was introduced at the turn of the twentieth century. Between 1896, the date of the first high-voltage electrical-cable transmission, and 1920, one third of American industries were powered by electricity. Hydroelectrical power, as well as the advent of the automobile age, resulted in the relocation of heavy industries from urban cores, where they had been traditionally located because of the need for rail transport in acquiring raw materials and sending processed products to market. Many large corporations began constructing industrial parks on agricultural hinterland outside urban cores. These parks often featured separate buildings arranged in a campus-like setting, each devoted to a certain function related to the manufacturing and distribution process. The layout of these parks was also shaped by assembly-line production, developed following the invention of the overhead trolley in 1913, which allowed for the lateral transport of goods. As a result, factory buildings began to be designed horizontally, being constructed only one or two stories in height. Traditionally, factories had been vertically orientated, being multiple stories high (Rifkind 1980:293).

Property Types Within the Project Area: Factory